Decision **DRAFT DECISION OF ALJ COOKE** **(Mailed 2/19/2002)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking into Distributed Generation.	Rulemaking 99-10-025 (Filed October 21, 1999)

OPINION INTERPRETING PUBLIC UTILITIES CODE SECTION 2827(d)

1. Summary

Generators eligible for net energy metering under Pub. Util. Code § 2827[1] are exempt from paying for costs associated with interconnection studies, distribution system modifications, or application review fees.

2. Background

The purpose of this rulemaking is to develop policies and rules to facilitate deployment of distributed generation in California. Customers utilizing onsite generators must comply with interconnection requirements set forth in Rule 21 of utility tariffs. In order to ensure that unnecessary barriers to deployment of distributed generation are removed, the Commission adopted standards to simplify and standardize interconnection requirements and associated fees governing interconnection of distributed generation facilities. Decision (D.) 00-12-037 adopted a uniform rate for an initial and supplemental review of an interconnection application and authorized the Interconnection Working Group to develop further refinements to the standards. There was general

[1] All statutory references are to the Pub. Util. Code, unless otherwise noted.

agreement that for distributed generation installations under 10 kilowatts (kW) in size, there would be a limited need for detailed interconnection studies or distribution system upgrades to accommodate very small generating systems.

Pub. Util. Code § 2827 provides another rate option for customers utilizing small renewable generators. Section 2827 was adopted in 1995 and established a net energy metering program whose purpose was to "encourage private investment in renewable energy resources, stimulate in-state economic growth, enhance the continued diversification of California's energy resource mix, and reduce utility interconnection and administrative costs." (Stats. 1995, Ch. 369.) Net energy metering allows the eligible customer-generator to net its electricity usage drawn from the utility grid against its own electricity generation at retail rates. Eligible customer-generators were limited to residential customers installing wind or solar generators under 10 kW whose purpose was to supply their own load. The Assembly Floor Analysis developed at that time indicated that the statute required utilities to purchase surplus energy from eligible customer-generators without the customer having to be certified as a qualifying facility (QF). Section 2827 was amended in 1998, 2000, and 2001.

In 1998, § 2827 was amended to expand the definition of an eligible customer-generator to include small commercial customers installing wind or solar generators, among other changes. The 1998 changes also set forth the following new requirement:

> "(d) Each net energy metering contract or tariff shall be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the same customer would be assigned if such customer was not an eligible customer-generator…. Any new or additional demand charge, standby charge, customer charge, minimum monthly charge,

> interconnection charge, or other charge that would increase an eligible customer-generator's costs beyond those of other customers in the rate class to which the eligible customer-generator would otherwise be assigned are contrary to the intent of this legislation, and shall not form a part of net energy metering contracts or tariffs."
> (Stats. 1998, Ch. 855.)

On April 11, 2001, Governor Davis approved Assembly Bill (AB) X1 29, (Stats. 2001, Ch. 8) which specified certain changes to California's net energy metering program. Previously, program participation was limited to residential and small commercial customers with wind or solar generating facilities of 10 kW or less. ABX1 29 adds temporary provisions to expand eligible customer classes to include all commercial, industrial and agricultural customers and increases the allowable facility size to 1 megawatt (MW). Section 2827(d) is unchanged from the 1998 amendments.

The Interconnection Working Group has held discussions regarding the impact of ABX1 29 on the utilities' interconnection rules and practices, including recovery of costs associated with interconnecting net energy metered facilities above 10 kW. The utilities assert that projects over 10 kW will likely require additional studies to determine potential impacts of facilities on the distribution system. If significant system impacts are identified, interconnection facilities or distribution system modifications could be required to mitigate these impacts. The utilities assert that net energy metered customers over 10 kW that require additional studies or modifications should bear the associated costs to provide these services and equipment. Other parties assert that § 2827(d) exempts eligible customer-generators from any interconnection costs.

There are five general cost categories associated with generation units and their interconnection:

1. Generating facility costs;
2. Interconnection facility costs;
3. Distribution system improvement costs;
4. Interconnection study costs; and
5. Interconnection application review fees.

All parties agree that generating facilities that interconnect to the electricity grid, whether eligible for net energy metering under § 2827 or not, are responsible for the first two cost categories. Thus, all generators must pay for their own generating and interconnection facility costs. The utilities generally define interconnection facility costs as metering and protective systems needed to achieve safe interconnection. Interconnection facilities can occur on either the customer or utility side of the meter. As set forth in Rule 21, customers who install generation are responsible for the next three cost categories as well. (*See* D.00-12-037, Attachment A, pp. 9-10, Section 5.2.) This allocation of cost responsibility is not in dispute for distributed generators that do not meet the requirements of § 2827.

Although it is not explicitly stated in Rule 21, parties generally believe that facilities less than 10 kW in size are unlikely to require significant distribution system improvements or detailed interconnection studies. (*See* the October 30, 2001, Comments of PG&E, p. 13 and Comments of SCE, p. 7.) Thus, most generators under 10 kW, although responsible for all cost categories under Rule 21, would only incur application review fees. Rule 21 implemented a waiver of application review fees for generators eligible for net energy metering, indicating that this was pursuant to § 2827 (*see* D.00-12-037, Attachment A, p. 3), prior to the expansion of § 2827 to facilities up to 1 MW.[2]

3. Procedural Background

On September 28, 2001, Assigned Commissioner Bilas issued a ruling directing that the utilities file proposals to define and allocate costs associated with interconnecting distributed generation and specifically how to implement Pub. Util. Code § 2827(d) as it relates to interconnection costs. On October 30, 2001 Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) filed the required proposals. The California Solar Energy Industries Association (CalSEIA) also filed a proposal. Comments on the proposals were filed November 13, 2001 by SDG&E, SCE, CalSEIA, Kenneth A. Adelman (Adelman),[3] RealEnergy,[4] Office of Ratepayer Advocates (ORA), and jointly by California Department of General Services, University of California, and California State University (State Consumers). Replies were filed November 20, 2001 by PG&E, SDG&E, SCE, CalSEIA, and Adelman.

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[2] PG&E notes in its October 30, 2001 comments that it believes that this exemption is based on policy considerations rather than a requirement of § 2827 and asks the Commission to confirm its interpretation. (*See* p. 4.)

[3] Adelman did not appear or seek to intervene in this proceeding. We will treat Adelman's filing as a request to intervene and grant Adelman appearance status. The service list should be updated to reflect that Mr. O'Neill is appearing as counsel for both CalSEIA and Adelman.

[4] RealEnergy was granted Information Only status in this proceeding and has not sought to modify that status through a request to intervene. We will treat RealEnergy's filing as a request to move to appearance status and grant that request. The service list should be updated to reflect RealEnergy's move from Information Only status to Appearance status.

4. Discussion

At issue here is whether generators eligible for net energy metering under § 2827 are exempt from paying for costs associated with interconnection studies, distribution system modifications, or application review fees. Section 2827(d) requires that eligible customer-generators be charged rates and fees no higher than those charged to customers in the class to which the eligible customer-generator would otherwise be assigned. CalSEIA argues that § 2827(d) should be interpreted to compare the rates and fees charged to an eligible customer-generator to that customer's retail rate class, absent generation. PG&E, SDG&E, and SCE, on the other hand, argue that the comparison should be to the generator rate class to which the customer would be assigned if it did not utilize specified renewable technologies but still generated power.

Rule 21, as approved in D.00-12-037, exempted net energy metered eligible customer-generators from payment of application review fees prior to expansion of eligibility to 1 MW. SDG&E and SCE agree that eligible customer-generators under § 2827 were exempt from paying for application review fees and have not paid interconnection study costs due to the fact that full-blown studies have not been necessary for eligible customer-generators under 10 kW in size. Both SDG&E and SCE would waive application review fees for eligible customer-generators up to 1 MW. However, SDG&E and SCE both indicate that if a full interconnection study is required, even for eligible customer-generators, the costs should be borne by the customer rather than the ratepayer body as a whole. PG&E would only allow a waiver of application review fees for eligible customer-generators under 10 kW but require them to be paid by customers between 10 kW and 1 MW, as well as eligible customer-generators paying for interconnection study costs.

When originally adopted, § 2827 was focused on encouraging residential customers to install very small renewable generating units. Without adoption of § 2827 in its original form, a residential customer installing a small renewable generating unit would have been required to become a qualifying facility in order to sell electricity back to the utility, clearly making the customer a generator. Section 2827 removed the requirement to become a qualifying facility and instead defined them as an eligible customer-generator. Adopted net energy metering tariffs did not require eligible customer-generators to pay standby charges like qualifying facilities or other generators, thus continuing to treat eligible customer-generators as retail customers.

This is a reasonable interpretation of the original legislation as it was designed to encourage the installation of environmentally sensitive generating units by residential customers who would otherwise not consider installing generation. Thus, although it is clear that eligible customer-generators are generators, the logical rate class comparison was to how they were previously situated, *i.e.*, as residential retail customers. To interpret the statute otherwise would require an assumption that renewable generation would already be installed by residential customers without the need of encouragement the statute explicitly states as its purpose.

Even after § 2827 was amended in 1998, adopted net energy metering tariffs have continued to treat eligible customer-generators as retail customers. SDG&E and SCE indicate in their comments that they have not charged eligible customer-generators under § 2827 for any study costs. No standby rates have been required for eligible customer-generators as they are for other generators. Thus, the utilities have treated eligible customer-generators under 10 kW like retail customers as recommended by CalSEIA. Although the utilities argue that the language of § 2827(d) would be rendered surplus if eligible customer-generators were not compared to the rate class for other generators, they have implemented the statute as if eligible customer-generators were retail customers. Given the original purpose of the statute, this approach to implementation makes sense.

Now the utilities argue that with the expansion of eligible customer-generators to 1 MW, eligible customer-generators should be treated as if they are generators, subject to interconnection study costs, payment of distribution system modifications and other costs typically assigned to generators. The utilities argue that the complexity of interconnection increases and will require interconnection studies to ensure system reliability as well as potentially costly distribution system modifications when eligible customer-generators are over 10 kW. PG&E states that systems above 10 kW are unlikely to qualify for simplified interconnection, thus requiring additional interconnection studies. Unless charged to individual generators, these costs will be recovered from ratepayers as a whole. The utilities contend that assigning these costs to ratepayers as a whole will encourage inefficient and uneconomic investment in eligible generating units.

PG&E notes that C.01-08-013 (the Adelman Complaint) requests further clarification of § 2827(d). However, PG&E argues that this specific interconnection is anomalous and will not commonly occur because of the facts specific to that case.[5] PG&E also states that typical distributed generation units

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[5] PG&E states that it requested a $7,250 deposit for an interconnection study and identified a "worst-case estimate" of potential distribution system upgrade costs of $605,000 to accommodate Adelman's photovoltaic system installation. Adelman's

Footnote continued on next page

smaller than 500 kW have not required distribution system modifications. (November 20, 2001 Reply Comments of PG&E.) Therefore, it is unclear that additional costs will occur or be borne by the general body of ratepayers as a result of interpreting § 2827(d) consistent with CalSEIA's recommendation. In addition, expansion of the net energy metering tariff to eligible customer-generators larger than 10 kW is temporary and expires December 31, 2002, making the potential cost exposure time-limited by the statute itself.

We are sympathetic to the argument that additional costs will be incurred by the general body with ratepayers if net energy metered eligible customer-generators over 10 kW in size are not required to pay application fees, interconnection study costs, or distribution system modifications like other generators. However, changes resulting from adoption of AB 1X 29 did not modify the provisions of § 2827(d). Utilities have consistently treated net energy metered customers like retail customers for purposes of the rate comparison, rather than generators. Past implementation of § 2827 does not support the utilities' current interpretation. In addition, the Legislature has consistently stated that one of the objectives of the net energy metering program is to encourage installation of eligible renewable generating units. By expanding the range of eligible customer-generators to generators between 10 kW and 1 MW for 20 months, the Legislature sent a message that eligible generation was to be installed quickly and with limited barriers. Changing our approach and treating

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project cost estimate was $315,000. PG&E states that because Adelman's residence is located "in a remote area at the end of a lightly loaded residential feeder" a larger circuit would be required to accommodate his project. (PG&E Reply 11/20/01, p. 9.)

net energy metered customers as generators, rather than retail customers for rate purposes would be inconsistent with past utility practice and Legislative intent.

We do agree that implementing § 2827(d) to exempt all eligible customer-generators from payment of application review fees, interconnection study costs, and distribution system modifications could result in a real (but undetermined) cost to ratepayers. As a result, we direct the utilities to track the costs associated with interconnection of net energy metered customers (application review costs (initial and supplemental), interconnection study costs, and distribution system modification costs). The costs should be tracked by project size, at a minimum distinguishing between projects under 10 kW and those between 10 kW to 1 MW in order to determine whether significantly different costs are incurred based on project size. The utilities should track similar information for interconnections processed under Rule 21 that do not meet the requirements of § 2827. With more experience, we can assess whether initial or supplemental review fees need to be modified (or differentiated by size or type of installation), whether any standardization of study costs is possible, and the real distribution system cost impact of distributed generation, specifically those projects that are eligible for net energy metering. SDG&E, SCE, and PG&E should file and serve a report on September 1, 2002 setting forth this data. This data, will allow us as well as parties to make more informed recommendations to the Legislature about whether any prospective changes to § 2827 are necessary.

5. Other Issues

SDG&E presents data on the amount of time required to process initial and supplemental interconnection reviews in order to demonstrate that the adopted fees are insufficient to cover the costs of typical review of interconnection applications. PG&E does not present data but indicates that the fees are inadequate to cover its costs. SCE also does not supply data, but indicates that the fees are often inadequate to cover its costs. When we adopted the initial and supplemental review fees we recognized that they might require adjustment based on more experience with Rule 21. As described above, we require the utilities to track costs associated with § 2827 interconnections and interconnections that are not eligible for net energy metering. As a result of this tracking, the utilities will be in a position to present actual cost data to the Interconnection Working Group in order to develop a recommendation, if necessary, for revision of the initial and supplemental review fees.

6. Comments on Draft Decision

The draft decision of Administrative Law Judge Michelle Cooke in this matter was mailed to the parties in accordance with Section 311(g) and Rule 77.7 of the Rules of Practice and Procedure. Comments were filed on ________________, and reply comments were filed on _________________.

Findings of Fact

1. Rule 21, as approved in D.00-12-037, exempted net energy metered eligible customer-generators from payment of application review fees.

2. Adopted net energy metering tariffs do not require eligible customer-generators to pay standby charges like qualifying facilities or other generators.

3. Utilities have consistently treated net energy metered customers like retail customers for purposes of the rate comparison described in § 2827(d).

4. Expansion of the net energy metering tariff to eligible customer-generators larger than 10 kW is temporary and expires December 31, 2002.

Conclusions of Law

1. One of the objectives of the net energy metering program is to encourage installation of eligible renewable generating units.

2. Implementing § 2827(d) to exempt all eligible customer-generators from payment of application review fees, interconnection study costs, and distribution system modifications could result in a real (but undetermined) cost to ratepayers.

3. Generators eligible for net energy metering under Pub. Util. Code § 2827 are exempt from paying for costs associated with interconnection studies, distribution system modifications, or application review fees.

4. PG&E, SDG&E, and SCE should track the costs associated with all interconnections (application review costs (initial and supplemental), interconnection study costs, and distribution system modification costs) by project size, distinguishing between projects under 10 kW and those between 10 kW to 1 MW in order to determine whether significantly different costs are incurred based on project size.

5. This decision should be effective today in order to allow the tariffs to be updated expeditiously.

O R D E R

IT IS ORDERED that:

1. The service list shall be updated to reflect that Edward O'Neill is appearing as counsel for both California Solar Energy Industries Association and Kenneth A. Adelman and that RealEnergy has moved from Information Only status to Appearance status.

2. Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) shall

submit revised tariffs to exempt generators eligible for net energy metering under Pub. Util. Code § 2827 from any costs associated with interconnection studies, distribution system modifications, or application review fees.

3. PG&E, SDG&E, and SCE shall track the costs associated with all interconnections (application review costs (initial and supplemental), interconnection study costs, and distribution system modification costs) by project size, distinguishing between projects under 10 kilowatts (kW) and those between 10 kW to 1 Megawatt in order to determine whether significantly different costs are incurred based on project size.

4. PG&E, SDG&E, and SCE shall file a report on September 1, 2002 setting forth the data tracked pursuant to Ordering Paragraph 3.

This order is effective today.

Dated ____________________________, at San Francisco, California.